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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,640	07/26/2001	Eliezer Peli	SER-002	8480

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Patent Administrator
Testa, Hurwitz & Thibault, LLP
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EXAMINER

NGUYEN, THONG Q

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 08/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,640

Applicant(s)

PELI ET AL.

Examiner

Thong Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-36, 38, 41-44 and 46-60 is/are rejected.
- 7) ☒ Claim(s) 17, 37, 39, 40 and 45 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings contain ten sheets of figures 1A-6C were received on 1/24/2002.

These drawings are objected to because of the following reasons.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

The reference "612" shown in figure 6B is not mentioned in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the feature relating to the arrangement of the objective lens and the ocular lens in a coincident manner with the lens as recited in each of claims 28, 29, 47 and 48 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-10, 12, 15-16, 18, 21-22, 25, 27-36, 38, 43-44, 46-52, 54-55 and 58-59 are rejected under 35 U.S.C. 102(b) as being anticipated by Spitzberg (U.S. Patent No. 5,028,127, submitted by applicant).

Spitzberg discloses an optical device. In columns 4-7 and figures 1-6, the optical device comprises a spectacle frame (14) for supporting a carrier lens (12) and a vision lens (10). The vision lens as described in column 6 and shown in figure 2a, comprises a plurality of optical elements arranged in a manner which permits an observation of an object for a user wearing the spectacle frame. It is noted that while the term "spectacle" is used with the term "vision" in claims 4 and 31; however, since the claims do not provide any specific structure/limitations and thus in its broad interpreter, the terms "spectacle lens" is understood as a lens for spectacle viewing. In this aspect, the vision lens (10) provided by Spitzberg meets the definition (as provided in the Dictionary) of the spectacle lens.

The optical elements as a whole forms a Galilean type telescope and comprises an objective lens (16) having positive power, a prism (13) having planar reflecting

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surfaces, and an eyepiece lens (18) having negative power. It is noted that since the objective lens, the prism and the eyepiece lens are bonded together to form a single unit thus the position of the objective lens and eyepiece lens are considered as the same position with the vision lens with the eyepiece lens being mounted behind the vision lens. A vision axis is defined as the axis passing through the eyepiece lens (18) and the optical axis of the objective lens is parallel to the vision axis. The optical path between the objective lens and the eyepiece lens has a section expanding in a direction perpendicular to the vision axis and the mentioned section is located inside the prism (13) of the vision lens. The reflecting surfaces of the prism are formed inside the prism and thus they are considered as optical elements embedded inside the prism. It is also noted that the reflecting surfaces are located between two outside surfaces of the vision lens in which one surface faces the user's face and the other located opposite with the surface facing the user.

7. Claims 1-12, 15, 18-19, 22-23, 26-29, 50-52, 54, 56, 58 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by Elkind (U.S. Patent No. 6,002,517, submitted by applicant).

Elkind discloses an optical device. In columns 2-3 and figures 1-4, the optical device comprises a spectacle frame (11) for supporting a carrier (19) having a vision lens (20). The vision lens as described in columns 2-3 and shown in figures 2 comprises a plurality of optical elements arranged in a manner which permits an observation of an object for a user wearing the spectacle frame. It is

noted that while the term "spectacle" is used with the term "vision" in claim 4; however, since the claim does not provide any specific structure/limitations and thus in its broad interpreter, the terms "spectacle lens" is understood as a lens for spectacle viewing. In this aspect, the carrier having vision lens provided by Elkind meets the definition (as provided in the Dictionary) of the spectacle lens.

The optical elements as a whole forms a Keplerian type telescope and comprises a reflecting surface (1) oriented an angle of 45 degrees with respect to the vision axis, an objective lens (2) having positive power, a set of planar reflecting surfaces/mirrors (3-6), and an eyepiece lens (9) having positive power. It is noted that since the reflecting surface, the objective lens, the mirrors and the eyepiece lens are arranged inside the vision lens to form a single unit thus the position of the objective lens and eyepiece lens are considered as the same or coincident position with the vision lens. A vision axis is defined as the axis passing through the eyepiece lens (9). The optical path between the objective lens and the eyepiece lens has a section expanding in a direction perpendicular to the vision axis and the mentioned section is located inside the carrier of the vision lens. The reflecting surfaces of the prism are formed inside the carrier and thus they are considered as optical elements embedded inside the carrier. It is also noted that the reflecting surfaces are located between two outside surfaces of the vision lens in which one surface faces the user's face and the other located opposite with the surface facing the user.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 13-14, 41 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzberg in view of David (U.S. Patent No. 5,724,163).

The optical device provided by Spitzberg does not explicitly disclose the use of holographic element as an optical element of the system. It also does not disclose the use of curved mirror in place of the planar mirror. However, such use of a holographic element instead of other kind of optical elements as claimed and the use of curved mirror instead of planar mirror as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification and claims in which applicant has admitted the use of normal or convention optical elements such as lens and/or planar. Further, the use of holographic element and curved reflecting surfaces in an optical device worn by an observer is known to ones skilled in the art as can be seen in the system provided by David. See column 7 and figure 3 and column 6, lines 3+. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to utilize any suitable optical elements including holographic elements with curved surface as

suggested by David in the system of Spitzberg for the purpose of improving the optical performance of the system.

10. Claims 20 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzberg in view of Zapp (U.S. Patent No. 5,321,547, submitted by applicant).

The optical device with lenses provided by Spitzberg meets all of the limitations recited in present claims except it does not clearly state that the lens is chromatically corrected. However, any kind of lens sold in the market has a level of chromatically correction and the present claim does not recite any specific limitations/structure relating to the lens as well as the level of chromatical correction. Absent of any critical features/limitations then the lens in the device of Spitzberg is inherently met the requirement as claimed. If it is not inherent then the use of chromatical lens in an optical device worn by an observer is known to one skilled in the art as can be seen in the system provided by Zapp. See column 3, lines 46-47. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize lens with chromatical correction as suggested by David in the system of Spitzberg for the purpose of improving the optical performance of the system.

11. Claims 23-24, 53 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spitzberg in view of Carlough (U.S. Patent No. 5,283,689).

The optical device with lenses provided by Spitzberg meets all of the limitations recited in present claims except it does not state that the objective lens and/or the eyepiece lens has a negative power. However, such use of an objective lens

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with negative power or an eyepiece lens with a negative power as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification and claims in which applicant has admitted the use of objective lens or eyepiece lens with positive power. Further, the use of an optical device worn by an observer having an objective lens or an eyepiece lens which can be a positive power or a negative power is known to ones skilled in the art as can be seen in the system provided by Carlough. See column 3 and figures 2-3. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to utilize an objective lens of either type of powers as suggested by David in the system of Spitzberg for the purpose of controlling the field of view or satisfying a particular design.

12. Claims 13-14, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elkind in view of David (U.S. Patent No. 5,724,163).

The optical device provided by Elkind does not explicitly disclose the use of holographic element as an optical element of the system. It also does not disclose the use of curved mirror in place of the planar mirror. However, such use of a holographic element instead of other kind of optical elements as claimed and the use of curved mirror instead of planar mirror as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification and claims in which applicant has admitted the use of normal or convention optical elements such as lens and/or

planar. Further, the use of holographic element and curved reflecting surfaces in an optical device worn by an observer is known to ones skilled in the art as can be seen in the system provided by David. See column 7 and figure 3 and column 6, lines 3+. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to utilize any suitable optical elements including holographic elements with curved surface as suggested by David in the system of Elkind for the purpose of improving the optical performance of the system.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elkind in view of Zapp (U.S. Patent No. 5,321,547, submitted by applicant).

The optical device with lenses provided by Elkind meets all of the limitations recited in present claims except it does not clearly state that the lens is chromatically corrected. However, any kind of lens sold in the market has a level of chromatical correction and the present claim does not recite any specific limitations/structure relating to the lens as well as the level of chromatical correction. Absent of any critical features/limitations then the lens in the device of Elkind is inherently met the requirement as claimed. If it is not inherent then the use of chromatical lens in an optical device worn by an observer is known to one skilled in the art as can be seen in the system provided by Zapp. See column 3, lines 46-47. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize lens with chromatical correction as suggested

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by David in the system of Elkind for the purpose of improving the optical performance of the system.

14. Claims 21, 24, 53 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elkind in view of Carlough (U.S. Patent No. 5,283,689).

The optical device with lenses provided by Spitzberg meets all of the limitations recited in present claims except it does not state that the objective lens and/or the eyepiece lens has a negative power. However, such use of an objective lens with negative power or an eyepiece lens with a negative power as claimed is merely that of a preferred embodiment and no criticality has been disclosed. The support for that conclusion is found in the present specification and claims in which applicant has admitted the use of objective lens or eyepiece lens with positive power. Further, the use of an optical device worn by an observer having an objective lens or an eyepiece lens which can be a positive power or a negative power is known to ones skilled in the art as can be seen in the system provided by Carlough. See column 3 and figures 2-3. Thus, absent any showing of criticality, it would have been obvious to one skilled in the art at the time the invention was made to utilize an objective lens of either type of powers as suggested by David in the system of Elkind for the purpose of controlling the field of view or satisfying a particular design.

Allowable Subject Matter

15. Claims 17/16/15/1, 37/36/31, 39/38/36/31, 40/38/36/31 and 45/31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

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independent form including all of the limitations of the base claim and any intervening claims.

16. The following is an examiner's statement of reasons for allowance:

The device as claimed in each of claim 17/16/15/1; 37/36/31; (39-40)/38/36/31 is patentable with respect to the cited art by the limitations relating to the arrangement of at least one of the mirror with an angle of 45 degrees with respect to the objective lens axis wherein the mentioned mirror is used in a system having the following features: a) a vision lens having a vision axis and a surface for placement in front of a user's eye; b) an objective lens, a plurality of planar mirrors and an eyepiece lens wherein the objective lens has its optical axis parallel to the vision axis and the mentioned elements are arranged so that a portion of optical path is located inside the vision lens and expanding in a direction perpendicular to the vision axis.

The device as claimed in claim 45/31 is patentable with the cited art by the limitations relating to the structure of the Keplerian type telescope claimed in a system having the following features: a) a vision lens having a vision axis and a surface for placement in front of a user's eye; b) an objective lens, a plurality of planar mirrors and an eyepiece lens wherein the objective lens has its optical axis parallel to the vision axis and the mentioned elements are arranged so that a portion of optical path is located inside the vision lens and expanding in a direction perpendicular to the vision axis.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

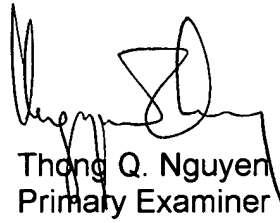
Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
Art Unit 2872

July 30, 2003